

Remarks

The Office Action dated March 4, 2008, has been received and carefully reviewed. The preceding amendments and the following remarks form a full and complete response thereto. Claims 1, 14 and 24 are amended. The amendments do not raise new issues that require further consideration or search. Support for the amendments can be found, inter alia, at page 17 of the present specification. No new matter is added. Accordingly, claims 1-36 remain pending in the application and are submitted for reconsideration in view of the amendments thereto.

Applicants' counsel thanks Examiners Banks and Grabowski for discussing the case with him on April 28, 2008.

The following rejections were brought:

- Claims 1-5, 7-8, 10-16, 23-26, 28, 30-36 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,507,346 issued to Maurer and U.S. Patent No. 4,988,126 issued to Heckenkamp in view of U. S. Patent Publication No. 2004/0239097 issued to Boehm et al.;
- Claims 6, 17-18, 20-22, and 29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Maurer and Heckenkamp et al. in view of Boehm et al. as applied to claims 1, 15, 16 and 24 above and in further view of U.S. Patent No. 6,082,778 issued to Solmsdorf; and
- Claims 9 and 27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Maurer and Heckenkamp et al. in view of Boehm et al. as

applied to claims 1 and 24 above and further in view of U.S. Patent

Publication No. 2004/0050269 in view of Adamczyk.

Applicants respectfully traverse the rejections and submit that claims 1-36 recite subject matter not disclosed or suggested by the combination of cited prior art.

Claim 1, upon which claims 2-13, 15, 20, 23 and 32-34 depend, defines a document of value that includes a security paper having at least one tangible marking in the form of a relief structure. That relief structure is formed from cotton fibers of the security paper, and is produced by a laser.

Claim 14, upon which claims 16-19, 21-22, and 35 depend, defines a security paper for documents of value, that includes at least one tangible marking in the form of a relief structure formed from cotton fibers of the security paper, that is produced by laser.

Claim 24, upon which claims 25-31 and 36 depend, defines a method for producing a tangible marking in a document of value, which includes a security paper characterized in that the security paper is exposed to the radiation of a laser. The inscription parameters of the laser and the composition of the security paper are adjusted to each other in such a way, that the result is the tangible marking in the form of a relief structure that is formed from cotton fibers of the security paper.

For example, the present application teaches, in particular in paragraphs 47, 56 and 83 with reference to Fig. 3, that the fibrous composite (of the cotton fibers) of the paper is broken up upon laser radiation and that single fiber ends are detached from the composite, so that the fiber ends are detached from the composite, so that the

fibers due their internal stress just jut out over the surface from the tangible marking in the form of a relief structure.

In contrast to the claimed invention, neither Maurer nor Heckenkamp teaches or suggests a relief structure that is formed in the paper itself, i.e., from the cotton fibers of the security paper which are exposed to the laser. Both prior art references disclose forming relief structures in an outer surface of a card, which is made from a laminated plastic, a foamable (plastic) material or other materials (i.e., not cotton) that could be melted by the laser. See, e.g., Maurer (Col. 6:27–43; FIG. 2); Heckenkamp (Col. 8:32–68; FIG. 8).

None of the other cited references make up for the deficiencies in Maurer and Heckenkamp. For example, Boehm does not teach tangible markings can be produced from the cotton fibers of a security document by a laser, as claimed in claim 1 and 24. Boehm instead solves a completely different problem, namely, reinforcing a document of value. Applicants submit that none of the documents suggest the claimed configuration and one could have arrived at the present invention only with the use of impermissible hindsight.

Moreover, Applicants submit that the skilled person would not arrive at the subject matter of the present invention by simply interchanging the foamable plastic material of Maurer et al. by an (arbitrary) paper. In great contrast to the prior art, the present invention is based on the surprising finding that a tangible marking in the form of a relief structure with sufficient height cannot only be produced in a foamable plastic material but also in a suitable security paper. To achieve such a desired relief

structure, a multitude of parameters has to be considered, some of which have already been mentioned in the specification of the present application, namely inscription speed, laser energy, surface roughness, exposure time, processing modus and a modulation frequency of the laser, composition of the paper, and moving speed. The long standing prejudice according to which a tangible relief structure with sufficient relief height is predominantly only possible in foamable plastic materials according to Maurer disproved by the inventors of the present invention, which strongly indicates the existence of an inventive step.

That is, the reasoning under item 3 of the Office Action with respect to Maurer and Heckenkamp is not well-founded since the skilled person would not arrive at the subject matter of the present invention by just interchanging the foamable plastic material of Maurer et al. by an (arbitrary) paper. Thus, the rejections are clearly based on impermissible hindsight.

Thus, for at least the foregoing reasons, the cited prior art fails to disclose each and every element of independent claims 1, 14 and 24. Accordingly, Applicants request that the rejections be withdrawn and that claims 1-36 be allowed.

In view of the above, all objections and rejections have been sufficiently addressed. The Applicants submit that the application is now in condition for allowance and request that claims 1-36 be allowed and this application passed to issue.

In the event that this paper is not timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account No. 02-2135.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

Respectfully submitted,

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Date

/Brian A. Tollefson/
Attorney for the Applicants
Brian A. Tollefson
Reg. No. 46,338
ROTHWELL, FIGG, ERNST & MANBECK
1425 K Street, N.W.
Suite 800
Washington, D.C. 20005
(202) 783-6040